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Abstract

One or two sentences providing a **basic introduction** to the field, comprehensible to a scientist in any discipline.

*Keywords:* keywords

*Word count:* X

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# Results

The aggregated data-set describes 156,882 observations of daily physical activity and sleep from 15,934 unique participants. Table ?? shows demographic information. A table of study characteristics can be found in supplementary materials.

## The effects of physical activity on sleep

We explored the effects of physical activity on sleep (RQ1) using mixed-effects models. We estimated the effect of physical activity on sleep by age. The results are presented in Tables 1

Table 1:

*The quadratic effect of physical activity (volume) on sleep duration by age*

| term | b [95% CI] | se | t | p |
| --- | --- | --- | --- | --- |
| (Intercept) | -0.25 [-0.52, 0.03] | 0.14 | -1.77 | .149 |
| scale pa volume | 0.21 [0.14, 0.28] | 0.04 | 5.72 | < .001 |
| age | 0.00 [0.00, 0.01] | 0.00 | 4.29 | .001 |
| scale pa volume | -0.01 [-0.03, 0.01] | 0.01 | -1.15 | .281 |
| sesMedium | 0.08 [0.00, 0.15] | 0.04 | 2.07 | .042 |
| sesHigh | 0.01 [-0.11, 0.13] | 0.06 | 0.13 | .904 |
| sexMale | -0.08 [-0.14, -0.02] | 0.03 | -2.51 | .013 |
| bmi | 0.00 [-0.01, 0.01] | 0.00 | -0.47 | .674 |
| scale pa volume:age | 0.00 [0.00, 0.00] | 0.00 | -2.75 | .014 |
| age:scale pa volume | 0.00 [0.00, 0.00] | 0.00 | -2.36 | .021 |

*Note.* Adjusted for SES, BMI, and sex.